



Blockchain Technology Innovation in the Sports Industry from the Perspective of Islamic Development Economics

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ABSTRACT

A development economy that is predicated not solely on quantitative economic growth, but also on the moral and ethical dimensions of implementation, which in turn encourages changes in digital technology systems across multiple sectors, including the sports sector. Conceptually, it has made rapid progress in its development. However, there has been minimal implementation of Islamic economic principles that focus on sustainable development economics. This is imperative to forestall data manipulation in the blockchain technology system, which is liable to have ramifications for the social and cultural aspects of society at large. Blockchain technology in the domain of sports, including the tokenization of tickets, and the implementation of smart contracts for athletes in various sports. The rapid development of blockchain technology has raised concerns regarding data security and sustainable distribution. The present research employs a qualitative approach through a literature review study, emphasizing the relevance of books and journals related to the subject of study. This research study explores the significance of stakeholder aspects of blockchain technology innovation in the domain of sports from the perspective of Islamic development economics. Islamic development economics is predicated on Islamic economic values and the challenges faced in several social, cultural, and ethical aspects in the use of blockchain technology in sports. This underscores the necessity for structured educational programs that facilitate interdisciplinary dialogue among technology experts, scholars, and regulators. The economic values of Islamic development are realized through the use of blockchain technology, which utilizes mechanisms such as smart contracts.



1. INTRODUCTION

The previous decade has witnessed a substantial digital transformation across multiple sectors, including sports. Blockchain represents a revolutionary technological development that has begun to garner significant attention. The technology was initially recognized through the cryptocurrencies Bitcoin and Ethereum. Since then, it has evolved into several sectors, including digital asset management and data security. This dynamic has had ramifications for the sports industry, which has also adopted blockchain technology to create new business models by engaging fans to build a more inclusive and sustainable ecosystem. On a global scale, blockchain technology has been employed in multiple sectors of the sports industry. These applications include the creation of fan tokens, digital ticketing systems based on non-fungible tokens (NFT), and smart contracts that function as sponsorship and copyright management

systems [1]. The development of these innovations has the potential to enhance efficiency and democratize the sports industry. However, these developments are dynamic in adjusting the economic framework of Islamic development based on a system of sustainability and shared prosperity.

Islamic development economics is predicated not solely on quantitative economic growth, but also on the moral, ethical, and distributive dimensions of justice. The system must be free from usury, gharar, and maysir, which encourage wealth redistribution mechanisms such as zakat, infaq, sadaqah, and waqf. Several Muslim-majority countries have adopted blockchain technology in both the private and public sectors. The United Arab Emirates has been a trailblazer in this regard, implementing the Dubai Blockchain Strategy not only in government entities but also in sports. Al-Nasr SC, a soccer club, has entered into a

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collaborative relationship with blockchain platforms to launch digital ticket tokens, with the objective of increasing soccer fan engagement [2]. Moreover, the Kingdom of Saudi Arabia has adopted this technology for application in major sporting events, including Formula E, a component of the Vision 2030 initiative aimed at the digitization of entertainment and sports sectors. In the Southeast Asian region, Malaysia has developed an Islamic fintech system that utilizes blockchain-based innovation. The Malaysian government has established the Securities Commission Malaysia to provide guidelines for the integration of blockchain technology in the sports industry, with a focus on aligning with Islamic values [3]. A similar trend is observable in Indonesia, where the Indonesian Waqf Board (BWI) has initiated experimentation with blockchain-based digital waqf. However, this has yet to translate into the sports sector, where awareness of technology and developments in infrastructure are paramount in facilitating the implementation of blockchain in the halal sports industry in the future.

The primary concern of this research is the optimization of blockchain technology integration in the sports industry in accordance with Islamic economic values, which are engaged in economic development. While the integration of technology has been demonstrated to promote efficiency, inclusivity, and transparency in a variety of domains within the sporting realm, further investigation is necessary to ascertain its impact on specific aspects of the sports field. A number of studies have examined the impact of blockchain technology in the sports industry, focusing on the digitization of tickets, as well as tokenization of athlete and club assets and sports organizations through a decentralized system [4]. The research under discussion pertains to the implementation of blockchain technology in the pursuit of global sustainability, in addition to in-depth technical explorations concerning the significance of the prevailing blockchain status quo within the domain of sports [5].

This research study explores several significant aspects by addressing this issue. First, the perception and understanding of stakeholders in the implementation of blockchain technology in the Islamic framework must be examined. Secondly, the study of the economic values of Islamic development that have potential in the implementation of blockchain innovation in the sports sector. Thirdly, it examines the challenges in social, cultural, and ethical aspects that can impact the use of blockchain technology in the sports industry based on sharia principles [6].

2. MATERIALS AND METHODS

This research employs a qualitative approach to literature review by exploring the concepts and principles of the relevance of blockchain technology invasion in the sports industry from the perspective of Islamic development economics. The data is collected from secondary sources, including scientific journals and books relevant to the research. The subsequent analysis of the data will entail the identification of patterns pertaining to the primary issues, as well as the conceptual relationships between technological innovation and Islamic value principles. The validity of the study is established through triangulation, a methodological approach that involves the systematic comparison of diverse academic literature to assess the compatibility between the characteristics of blockchain technology and normative values in Islamic development economics.

3. RESULTS

A multitude of studies have demonstrated the adoption of blockchain technology within the global sports industry, particularly in Europe and North America, manifesting in the domains of NFT-based ticket management and smart contracts. Furthermore, the dissemination of this technology has extended to encompass Muslim-majority countries. The integration of blockchain technology into the sports sector has been identified as a key component of the digital transformation strategy for several countries, including the United Arab Emirates and Saudi Arabia, as part of their broader national development agendas. For instance, Formula E and international sporting events utilize a blockchain-based ticketing system and prioritize data security.

Conceptually, blockchain technology has similarities to the principles of Islamic development economics, such as transparency, justice, and the absence of exploitation. In the world of sports, smart contract systems are an automated and open transaction mechanism to reduce fraud and data manipulation, ranging from the payment of athletes' salaries to the accounting of funds provided by sponsors [7].

According to previous studies, there is great potential in the integration of financial system instruments into the sports industry through the blockchain platform. Productive waqf, can be used as a digital waqf format for financing in sports academies, building infrastructure as a facility for the development of young assets [8]. In this case, the technology can ensure that waqf funds can be seen in real time, transparency and security in th

form of fraud, with the aim of increasing public trust in Islamic social fund-based initiatives. Several studies have conducted research explicitly related to Islamic development economics, but it is still limited. A conceptual model for the integration between blockchain innovation, the sports industry, and Islamic values. It is important to study this in order to develop a transdisciplinary approach that identifies halal in the sports sector [9].

4. DISCUSSION

4.1. Perception and Understanding of Stakeholders in the Implementation of the Application of Blockchain Technology in the Islamic Framework

The integration of blockchain technology with Islamic legal principles, known as *fiqh muamalah*, represents a significant innovation within the Islamic context. Stakeholders defined as regulators, industry practitioners, and academics play a pivotal role in the adoption of these technological systems. The most effective comprehension of the transparency and efficiency exhibited by blockchain technology is predicated on the concept of decentralization. This concept involves minimizing data manipulation to enhance trust in a system, a necessity in economic activities grounded in Islamic principles.

A considerable number of stakeholders possess a relatively limited perspective on cryptocurrency, which has led to various instances of contention and discourse within the context of Islamic law. This phenomenon can be attributed to the presence of elements such as *gharar*, *maysir*, and the absence of intrinsic value in certain crypto assets. Therefore, from a conceptual standpoint, blockchain can be regarded as an infrastructure technology, whereas crypto is merely a tool or application within the technological domain.

The Islamic perspective on the acceptance of technology is contingent upon the compatibility of the *maqasid* principles of sharia. The application of blockchain technology has been demonstrated to enhance social justice, fortify accountability, and preclude manipulation, aligning with the tenets of sharia law. A pedagogical approach to technology reinforcement entails the exploration of the distinctions between technologies and their applications by relevant stakeholders.

Sharia regulations and guidelines constitute a foundational element within the framework of blockchain technology. A number of fatwas and *ijtihad*s have been issued to assess the halal use of this technology. Therefore, the establishment of a Technology Sharia council is imperative. This council would serve as an effective mechanism for

addressing technological issues in a sustainable and conceptual manner.

4.2. Review of Potential Islamic Development Economics Values in the Implementation of Blockchain Innovations in the Sports

The sports sector is a significant component of the global and regional economies. Islamic economics, however, posits a divergent perspective on the role of sports. Islamic economics regards sports not merely as a form of entertainment or achievement, but as a potential economic asset that can be cultivated in accordance with Sharia principles, particularly those pertaining to justice, benefit, and empowerment [10]. The application of blockchain technology in the sports sector presents a range of opportunities that are consistent with the tenets of Islamic economics. These opportunities can be categorized under the following headings:

First, in the context of distributed justice in the economy, the implementation of a smart contract system enables the automation of agreements between participants, including camps, sponsors, and other stakeholders. The system has been demonstrated to have a significant impact on the objective of streamlining administrative processes by decreasing transaction costs for all parties involved and ensuring the transparent allocation of rights.

Secondly, the value of cooperation encourages the implementation of a halal token system that can be used for community-based sports crowdfunding. The community has the opportunity to invest in local sports clubs through the use of sharia-based asset tokenization. The establishment of these connections fosters economic interdependence among communities and clubs, thereby enhancing financial support and promoting social engagement, leading to a sense of collective ownership.

Thirdly, the blockchain technology has the potential to promote inclusivity and transparency in the sale of sports tickets and merchandise. This initiative is undertaken with the objective of mitigating monopolistic practices and fraudulent activities in the distribution sector that can be facilitated through the utilization of NFT (Non-Fungible Token) Sharia. The aforementioned model is the basis for the principle of clarity in Islamic law. The execution of these processes is predicated on the tenets of sharia law, necessitating a comprehensive screening process and halal verification of all technological components and products utilized. Therefore, the

significance of the role of digital HAA certification bodies and technology-based Sharia authorities in the future is evident.

4.3. Challenges in the social, cultural, and ethical aspects of using blockchain technology in the sports industry based on sharia principles

The immense potential of blockchain technology is inseparable from various social, cultural, and ethical challenges. Muslim communities in developing countries exhibit a deficiency in technological literacy. This is a significant concern in the context of blockchain technology adoption. Furthermore, cultural resistance to digital innovation has resulted in a deficiency in comprehension regarding its functionality and the advantages that will be derived from it, thereby hindering its potential to influence modernization. This modernization is regarded as a process that could potentially lead to the eradication of cultural values.

Ethical challenges are also a potential form of misuse of blockchain technology, despite its structural safety. This can facilitate activities that are contrary to Islamic principles if it cannot be controlled ethically. One such example is the exploitation of assets through excessive tokenization. It is imperative that these issues be addressed through an Islamic digital ethics approach that emphasizes the moral and social responsibility of technology.

A further challenge that must be addressed is the discrepancy between the rapid progression of technological development and the stagnant state of sharia fatwa. This disparity stems from the process of *ijtihad uama*, which facilitates the development of sharia fatwa at a more rapid pace than the rate at which it is currently applied. This discrepancy can lead to a state of uncertainty regarding the application and interpretation of sharia fatwa, thereby necessitating a thorough examination of the relationship between technological development and sharia fatwa to ensure their harmonious integration. In this case, a model is required that will serve as a nexus between educational institutions, industry, and religious authorities. This model will be tasked with the responsibility of conducting public education about digitalization in the sports industry sector.

5. Conclusion

The integration of blockchain technology within the domain of sports exhibits considerable promise in reinforcing sharia principles. The success of this relationship is contingent upon the understanding and cooperation of stakeholders. The concept of blockchain is characterized by a

wide array of perspectives and interpretations, which is a hallmark of its often speculative nature. This observation underscores the necessity for structured educational initiatives that facilitate interdisciplinary dialogue among technology experts, scholars, and regulators. Moreover, the economic values of Islamic development are realized through blockchain technology by means of mechanisms such as smart contracts. In essence, the principles of blockchain align with those of the Islamic economy. However, its implementation must be approached with caution and deliberation, particularly in the context of sustainable development, particularly within the sports industry [10].

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Conflict of Interest

No conflict of interest is declared by the authors. In addition, no financial support was received.

Ethics Committee

The study protocol was approved by the Ethics Committee of the Institute of Health Sciences of Bandirma Onyedi Eylul University (Ethics Committee Approval: 2022/170).

Author Contributions

Study Design, AK, BÇ; Data Collection, AK, OB; Statistical Analysis, AK, NK; Data Interpretation, AK; Manuscript Preparation, AK, BÇ, NK; Literature Search, AK, KU, OB. All authors have read and agreed to the published version of the manuscript.

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